AMENDMENTS TO THE CLAIMS

Please amend Claims 8 and 16-19 as follows.

1-7. (Cancelled)

8. (Currently amended) An apparatus for processing L1 and L2 spread spectrum signals received from at least one satellite of a global positioning system, wherein each of the spread spectrum signals includes a unique frequency carrier with a known pseudo-random known code modulated thereon, each L1 and L2 signal being converted into a plurality of digital signals, the apparatus comprising:

a generator for generating a single replica of the known code;

a delay line connected to the generator, the delay line having a plurality of taps wherefrom the known code replica is available at different relative phases thereof;

a first demodulator connected to the generator for demodulating ~~one of~~ the ~~received~~ converted L1 and L2 signals with the single replica of the known code without any substantial delay, the first demodulator output being associated with the L1 signal;

a second demodulator selectably connectable to any one of the taps of the delay line for demodulating ~~the other of~~ the ~~received~~ converted L1 and L2 signals with a delayed replica of the known code, the second demodulator output being associated with the L2 signal; and

switches for selectably switching ~~the other of~~ the ~~received~~ converted L1 and L2 signals for demodulation by the second demodulator, and ~~to switch~~selectably switching ~~the one of~~ the ~~received~~ converted L1 and L2 signals for demodulation by the first demodulator.

9-15. (Cancelled)

16. (Currently amended) A method of processing L1 and L2 spread spectrum signals received from at least one satellite of a global positioning system, wherein each of the signals includes a unique frequency carrier with a known pseudo-random code modulated thereon, each

L1 and L2 signal being converted into a plurality of digital signals, the method comprising ~~the steps of~~:

locally generating a single replica of the known code;

applying the single replica of the known code to a delay line having a plurality of taps wherefrom the code replica is available at different relative phases thereof;

first demodulating ~~one of~~ the ~~received~~ converted L1 and L2 signals with the single replica of the known code without any substantial delay, the first demodulated signal being associated with the L1 signal;

second demodulating ~~the other of~~ the ~~received~~ converted L1 and L2 signals with the generated replica of the known code from one of the taps of the delay line, the second demodulated signal being associated with the L2 signal; and

selectably switching ~~the demodulation using the not substantially delayed single replica of the known code to the one of~~ the ~~received~~ converted L1 and L2 signals for the first demodulation and selectably switching~~demodulating the other of~~ the ~~received~~ converted L1 and L2 signals for the second demodulation ~~with a generated replica of the known code from one of the taps of the delay line~~.

17. (Currently amended) The method according to claim 16, further comprising ~~the steps of~~:

repetitively and separately integrating the demodulated L1 and L2 signals over a time period;

adjusting the phases of the locally generated code replicas relative to the incoming L1 and L2 signals in order to maximize the power of the integrated demodulated L1 and L2 signals, whereby the resulting locally generated code phases are useable to determine information of the location of the receiving position with high accuracy.

18. (Currently amended) The method according to claim 17, wherein the demodulating ~~step~~ includes ~~the steps of~~:

demodulating sequentially the other of the received L1 and L2 signals with a plurality of generated replicas of the known code from different taps of the delay line; and if no suitable maximum power is obtained from the adjusting ~~step~~;

switching the demodulation with the not substantially delayed single replica of the known code to the other of the received L1 and L2 signals and demodulating the one of the received L1 and L2 signals with a generated replica of the known code from one of the taps of the delay line.

19. (Currently amended) The method according to claim 17, wherein the frequency carriers are also modulated with an unknown code and the phase adjustment ~~step~~ includes correlating a result of the integration ~~step~~ from each of the two L1 and L2 signal paths with the integrated signal of the other of the L1 and L2 signal paths; and

adjusting the phases of the locally generated known code replicas relative to the incoming L1 and L2 signals in order to maximize the power of the correlated L1 and L2 signals, whereby the resulting locally generated known code phases are useable to determine information of the location of the receiving position with high accuracy.

20-21. (Cancelled)